

IN THE CLAIMS

- 1 (Currently Amended). A method comprising:
blanket depositing a mobility enhancing silicon material over a region of a semiconductor substrate to form amorphous and crystalline films; ~~and~~
selectively removing ~~[[an]]~~ the amorphous film without substantially removing the crystalline film; and
forming a strained channel MOS transistor with said crystalline film forming at least part of a source and drain.
- 2 (Original). The method of claim 1 including blanket depositing a material to enhance compressive strain.
- 3 (Original). The method of claim 1 including blanket depositing a material to enhance tensile strain.
- 4 (Original). The method of claim 1 including blanket depositing a carbon doped silicon material.
- 5 (Original). The method of claim 1 including blanket depositing a boron doped silicon material.
- 6 (Original). The method of claim 1 wherein selectively removing includes etching in the presence of sonication.
- 7 (Original). The method of claim 6 including etching using tetramethylammonium.
- 8 (Original). The method of claim 6 including etching using NH_4OH .
- 9 (Original). The method of claim 1 wherein blanket depositing includes depositing using trisilane.

10 (Original). The method of claim 9 including depositing using trisilane at a temperature less than 550°C.

11 (Original). The method of claim 1 including forming a strained channel NMOS transistor.

12 (Original). The method of claim 1 including forming a strained channel PMOS transistor.

13 (Previously Presented). The method of claim 1 including removing ion implanted source/drain regions and blanket depositing a mobility enhancing silicon material in place of said removed source/drain regions and over gate electrode regions.

14 (Withdrawn). A semiconductor structure comprising:
a semiconductor substrate;
a gate structure formed over said substrate; and
a film of mobility enhancing material formed over said substrate and said gate structure, said film being amorphous over said gate structure and crystalline over said semiconductor substrate.

15 (Withdrawn). The structure of claim 14 wherein said film is carbon doped.

16 (Withdrawn). The structure of claim 14 wherein said film is boron doped.

17 (Withdrawn). The structure of claim 14 wherein said film includes trisilane.

18 (Withdrawn). The structure of claim 14, said substrate including depressions, filled with said film, on either side of said gate structure.

Claims 19-32 (Canceled).